# Gardening 101:  The Basics

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# What are we talking about today?

- The MANY benefits of gardening
- Basic Gardening Terms
- Building the Soil
- Edible Crops
- Drought tolerant plants and succulents
- Care and maintenance
- A brief word about common pests
- Q&A

# Benefits of gardening

- Growing your own food, herbs and medicines
- Creating areas for pollinators and beneficial insects
- Creating drought tolerant landscapes in order to conserve water and resources
- Building healthy soil for the benefit of the plants and soil life
- Relaxing, stress relief, overall mental health
- Good bacteria in the soil help boost the immune system
- It is soooo much fun and can be so rewarding♥♥
- Save $$$

# Deciphering Gardening Lingo

# Gardening Terms

## Perennial

Plant once and enjoy for at least 5-10 years

## Annual

Plant once and enjoy for one season or one time

# Gardening Terms

## Biennial

**Two** growing seasons:  first-leaves, second-sets fruit then dies

# Gardening Terms: Seed Types

- **Hybrid**: Pollination is tightly controlled. Cannot save seeds for following year and expect the same result.
- **Open Pollinated**: Plants whose pollination is natural and random. You are able to save seeds and get a copy of the parent seed.
- **Heirloom**: unchanged seed varieties passed down through families or communities. Open pollinated seed.

# Gardening Terms

- **Native plant:** varieties that existed in nature prior to human intervention. They are already suited for climate and soil types.

- **Drought tolerant:** plants that can exist without water after getting established (1-2 years). Some go dormant in the summer to save resources.

# Gardening Terms

## Hardiness zone

- Average range of low temperatures that your plants will thrive in. Zones range from 2 (coldest) to 10 (warmest).
- The SF Bay area is in Zone 10 (30-40°)

## Cover Crops

- *(aka green manures)* Plants grown to improve the soil quality and nutrition. Some add nitrogen (fix) and others help to break up clay soil
- **Examples**: clover, vetch, alfalfa, fava beans, rye, oats

# Gardening Terms: N-P-K

- **Nitrogen** (N): for stem and leave development
- **Phosphorus** (P): for flower and fruit development
- **Potassium** (K): for general health and metabolism

# Building Your Soil

**The Foundation for every successful and healthy garden**

# Building Your Soil: Compost

- Completely decomposed organic material.

**Uses:**

- Return nutrients to soil
- Water retention
- Balance pH levels
- Can be mixed into or laid on top of soil
- Easy to make in your own garden or apartment

# Building Your Soil: Mulch

- Placed on top of the soil

**Coarse:** use from 2-12 inches
  - Wood chips

**Fine:** use from 1-2 inches
  - Pine needles, straw

**Uses:**

- Weed suppression
- Water retention
- Erosion control

# Building Your Soil: Amendments

- Bone Meal-(P)
- Fish Meal-(N)
- Fish emulsion-(N)
- Coffee grounds-(N & acidity)
- Ground egg shells-(Ca)
- Epsom salts-(Mg)
- Banana peels-(K)-*dry and ground before using*

**So now that the soil is ready….**
**let's put in some plants!!**

**The question I always get is: what can I plant?**

# My answer is:  What is going to be the function of your garden?

- Growing Food? Medicine?
- Cutting garden for flowers?
- An outdoor room/place to relax?
- Habitat for *wildlife (bees, birds, butterflies, beneficial insects or lizards)*
- Blocking the neighbors/increasing privacy

# Edible Crops

# When to plant annuals by season

**Cool season (40-75 degrees)**

Beet, broad bean, Brassicaceae *(broccoli, Brussels sprouts, cabbage, cauliflower, Chinese cabbage, collards, kale, kohlrabi*), chard, parsnip, radish, rutabaga, sorrel, spinach, turnip, artichoke, carrot, celeriac, celery, lettuces, parsley, peas, potatoes, chicory, Alliums *(chives, garlic, leeks, onions, shallots)*

**Warm season (50-75 degrees)**

Beans, corn, pumpkin, squash, cucumber

**Hot season (50-95 degree, long hours of daylight)**

Sweet peppers, tomatoes, eggplant, hot peppers, sweet potato, watermelon

# Sunshine Requirements

**Leafy veggies need 3-4 hours**

**Fruiting veggies need a min 6 hrs**

# Seeds or Starts ?

## SEEDS

- Cheaper than plants
- So many to choose from!!
- Find a variety suited to your climate
- Diseases and pests are not imported from other plants
- It's fun!!
- They can be **FREE**!!!

## STARTS

- Easy access/great backup
- Ready to plant when you are
- Better for perennials

# How to start seeds

- Some seeds can be directly sown in the soil, but others can be germinated before and transplanted outdoors
- Spring & Summer crops need to be germinated approx. 6-8 weeks prior to transplanting
- Seeds can be sourced through: catalogs/online, local nurseries, seed libraries

**Tips for germinating**

1. Keep the seedlings damp, but not too wet
2. Place in a sunny/warm area
3. Once the seeds germinate remove the cover to your greenhouse
4. Rotate seedlings as they bend toward the light
5. Once the seedlings produce a second set of leaves (true leaves) they are ready to transplant

- Mini greenhouses can be made out of:
  - Soda bottles
  - Salad mix containers
  - Clear totes
  - Window panes
- You can start seedlings in:
  - Used egg shells
  - Paper egg cartons
  - Reuse 2-4 inch or 6-pack
  - TP or paper towel rolls
- Large plants can be sown 3-5 seeds in one container *(easy to divide)*

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- Native and drought tolerant plants- **Fall**
- Fruit trees-**Fall- late winter**
- Succulents-**anytime**
- Herbs-**anytime**

# When to plant perennials

# Watering and Irrigation

- **Best times:** Mornings and evenings after the sun have left your garden.
- **How:** Drip irrigation or hand watering. Be sure to water the soil, not the leaves
- **Tips:**
  - Place irrigation tubing under mulch to protect and to reduce evaporation
  - Test the soil before watering –finger or soil probe

- **Annuals:** 2-3x/week, more if it's hotter or if in containers *(they dry out quickly)*
- **Perennials:** 1-2x/week: give a good, deep soaking more in the summer for Native/drought tolerant plants
- **Succulents**: 1 month or as needed . Just need to keep them looking plump

# Watering and Irrigation

- Place saucers under containers in the summer (remove in winter) to collect and redistribute water to plants.  Dry containers allow water to pass through quickly, saucers recollect it.
- Ollas and other sub-surface self watering containers are a great option to get the water deep near the plants roots

# Care and Maintenance

- Maintain soil fertility by adding amendments throughout the growing season, especially container gardens
- Take care of pest problems quickly, but preventing them is always key
- Clean tools if you've been working with diseased plants
- Clip spent blooms off of perennials to encourage more growth *(deadheading)*
- Keep fallen fruit from littering the ground (attracts pests)
- Some perennial plants need to be pruned in the Fall/Winter months

# Pests

# Prevention is key

- Keep soil healthy so plants stay healthy
- Keep the moisture level in the soil even
- Incorporate plants that attract beneficial insects
  - Yarrow
  - Alyssum

- **Note**:  you must accept some level of pests in your landscape. No pests, no beneficial insects to eat them

# Tomato Hornworm

- Just 1 can decimate a plant
- Handpicking is the best option to get rid of them
- Look for their waste on lower leaves, they can hide VERY well
- Crop rotation (when possible) is another preventative method

# Slugs & Snails

- Hunt at night and early in the morning
- Really like new plantings, especially edibles
- Barrier methods:
    - Crushed eggshells
    - Cloches
    - Diatomaceous earth
- Handpicking

# Aphids

- **Bad news first:** they are born pregnant
- **Good news:** pretty easy to tackle
- Methods of getting rid of them:
  - Hard spray with the hose
  - Non toxic spray
    - 1 cup water + 1 Tbsp dish soap + 1 Tbsp vegetable oil

# Weeds

- Weeds are technically pests!!
- Hand pulling in moist soil is the easiest method of weed removal
- Sheet mulching over weeds works well too
- Weeds in cracks:
  - 1 gallon of  white vinegar (5%) + 2 cups Epsom salt
  - Do it on a sunny day to boost it

# Final tips

This **does not** need to be an expensive enterprise!!

Free and reduced resources are available

Always make room for pollinator plants

Make room for yourself too!

Experiment whenever possible

# Any Questions????

# Thank you for coming!!!!
# Happy Gardening!!

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